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| MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196 | | | MEHRA, INDER P | |
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| | | | 2617 | |

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,874

Applicant(s)

SAYEEDI, SHAHAB M.

Examiner

Inder P. Mehra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 20-22 and 24 is/are rejected.
- 7) ☒ Claim(s) 13-19, 23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/9/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application dated:4/13/06 and 5/9/06. Based on this amendment, claims 1-25 are pending.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-6 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by

Madour et al (US Application Publication No. 2001/0050907), hereinafter, Madour.

For claims 1 and 20, Madour discloses method and access network for an improved inter-PDSN (Packet Data Serving Node) dormant mode handoff ,(performs an intra-BSC/intra-PCF/inter-PDSN dormant handoff, refer to paragraph 0016); comprising:

- **exchanging, by an Access Network (AN) with a target PDSN, signaling to support an inter-PDSN handoff of a packet data**

session of a mobile station (MS), (refer to At step 125, of fig. 9, the MS performs an inter-PDSN dormant handoff. At 126, the packet-data session is reactivated due to the sending of agent advertisements and PPP re-negotiation. The reactivation includes the establishment of an SCCP connection 14 between the MSC 11 and the BSC 12. At 127, the MSC sends a Clear command to the BSC using the SCCP connection. The Clear command includes a cause value "authentication failure". The BSC reacts by clearing the traffic channel at 128, and at 129, sending an A9-Release-A8 message to the PCF 16. The A9-Release-A8 message includes the cause value "authentication failure", refer to paragraph 0064); also refer to FIG. 6 illustrates the situation in which an inter-BSC/inter-PCF/intra-PDSN dormant handoff is performed from a Source BSC 76 to a Target BSC 77, and from a Source PCF 78 to a Target PCF 79. The MS 13 is served by the same PDSN 18, paragraph 0054); At 130, the PCF reacts by clearing the A8 connection 17 and initiating the closure of the A10 connection 19. This action triggers the PDSN 18 to release the PPP connection at step 131;

- **establishing, by the AN with the MS, a traffic channel (TCH) to support the inter-PDSN handoff,**(refer to "When an MS attempts to use a packet-data service, the MSC and the Base

Station Controller (BSC) serving the MS take steps to allocate a radio **traffic channel**, refer to paragraph 0006);

- **determining, by the AN, that signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed** (the present invention is an MSC in a wireless access network that includes a first signaling means for receiving a message from a BSC indicating that an MS has powered down during a packet-data session; means for determining in the MSC that the packet-data session is dormant; and a second signaling means for sending an instruction to the BSC to release network resources associated with the packet-data session, refer to paragraph 0017);
- **in response to the determination that signaling has been completed, releasing, by the AN, the TCH**, (refer to “If it is determined at step 37 that the packet-data session is dormant, the method moves to step 41 where the MSC updates the location of the MS in the MS's HLR, and then instructs the BSC to **release the traffic and control channels**, refer to paragraph 0040.

For claim 4, Madour discloses the following limitation:

- wherein releasing the TCH is performed in response to determining, by the AN, that signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed, that the MS has

indicated that it does not have data to send after the dormant mode handoff, and that the AN has not received packet data from the MS after completing the signaling related to the inter-PDSN handoff, refer to paragraphs 0051, 0054, 0064 and claim 8.

For claim 5, Madour discloses the following limitation:

- receiving, by the AN from the MS, an origination message indicating that the MS is requesting a dormant mode handoff and does not have data send; sending, by the AN to the target PDSN, an indication that a handoff is being performed and the MS does not have data ready to send. (Refer to “during a dormant inter-BSC handoff to the BSC 12, the MS 13 sends a new origination message to the BSC 12 and PCF 16, refer to paragraph 0053, refer to fig. 6).

For claim 6, Madour discloses the following limitation:

- in response to the determination that signaling has been completed, releasing, by the AN, the Signaling Connection Control Part (SCCP) connection between the AN and a mobile switching center (MSC), refer to paragraph 0051.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour**, as above, in view of , **Harper et al** (US Application Publication No. 2003/0021252).

For claim 2, Madour discloses all the limitations of subject matter, Madour does not disclose the following limitation:

- wherein signaling to support an inter-PDSN handoff comprises
signaling from the group consisting of an A1 I-Registration Request
and an A1 I-Registration Reply

Harper discloses the following limitation,, as follows:

- wherein signaling to support an inter-PDSN handoff comprises
signaling from the group consisting of an A1 I-Registration Request
and an A1 I-Registration Reply, refer to paragraphs 0019,0020 and
0035, and abstract..

It would have been obvious to the person of ordinary skill in the art at the time the invention to use signaling to support an inter-PDSN handoff comprises signaling from the group consisting of an A1 I-Registration Request and an A1 I-Registration Reply, as taught by Harper in the mobile communication system. The capability can be implemented in the access network. The motivation for using signaling to include signaling from the group consisting of an A1 I-

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Registration Request and an A1 I-Registration Reply being that it provides load balancing technique.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour**, as above, in view of , **Perras** (US Application Publication No. 2002/0141369).

For claim 3, Madour discloses all the limitations of subject matter. Madour does not disclose the following limitation:

- wherein signaling related to the inter-PDSN handoff comprises signaling from one or more of the group of signaling types consisting of point-to-point (PPP) connection establishment signaling and mobile internet protocol (MIP) signaling

Perras discloses the following limitation:

- wherein signaling related to the inter-PDSN handoff comprises signaling from one or more of the group of signaling types consisting of point-to-point (PPP) connection establishment signaling and mobile internet protocol (MIP) signaling., refer to paragraphs 0050 and 0078, and figs. 2-3.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use one or more of the group of signaling types consisting of point-to-point (PPP) connection establishment signaling and mobile internet protocol (MIP) signaling. The capability of one or more of the group of signaling types consisting of point-to-point (PPP) connection establishment signaling and mobile internet protocol (MIP) signaling can be implemented in the

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access network. The motivation for using signaling to include signaling from the group consisting of PPP or MIP being that it provides load balancing technique.

8. Claims 7-8, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour/907**, as above, in view of, **Madour** (US Application Publication No. 2003/0053431, hereinafter Madour'431).

For claims 7, Madour'907 discloses all the limitations of subject matter, Madour does not disclose the following limitation:

- wherein determining that the signaling between the MS and the target PDSN has been completed comprises receiving, by the AN from the target PDSN, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed.

Madour'431 discloses the limitation, as follows:

- wherein determining that the signaling between the MS and the target PDSN has been completed comprises receiving, by the AN from the target PDSN, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed, , (refer to Madou'431's "upon reception of handoff completion message from the terminal 205, ---during the signaling 340, the target BS 222 uses the packet access network ID (PANID) information and for establishing an A10/A11 connection with the PDSN220, which

disconnects previous A10/A11 connection. In other words, PDSN 220 becomes target PDSN, paragraph 0035).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “determining that the signaling between the MS and the target PDSN has been completed comprises receiving, by the AN from the target PDSN, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed”. The capability can be implemented in the access network. The motivation for notifying the source terminal via access network that signaling has been completed to release current traffic channel.

For claim 8, Madour’907 discloses all the limitations of subject matter, including the following limitation:

- receiving, by the AN from the target PDSN, a request to transition the packet data session from an active state to a dormant state, (refer to “inter PDSN dormant handoff will not be accompanied by a reactivation of the packet session to an active state (refer to “remains dormant after handoff”, paragraph 0065).

For claim 11, Madour’907 discloses “ sending, by the target PDSN to the AN, the indication that the signaling related to the inter-PDSN handoff has been completed, in response to determining, by the target PDSN, that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed and that the target PDSN has not received

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packet data from the MS or for the MS in addition to the signaling related to the inter-PDSN handoff" (refer to paragraphs 0054 for "inter-PDSN handoff", paragraph 0055 for "no traffic", paragraph 0065 for "PDSN will only send agent advertisements when PDSN deems it necessary").

For claim 12, Madour'907 discloses all the limitations of subject matter, including the following limitation, as follows:

- wherein sending the indication that the signaling related to the inter-PDSN handoff has been completed is performed in response to determining additionally, by the target PDSN, that the AN has indicated that the MS does not have data ready to send, (refer to fig. 9 step 128 for "BSC(access network) clears traffic channel implying "no data", and paragraph 0064 for "PDSN triggers to release the PPP connection at step 131", and paragraph 0065 for "PDSN will only send advertisements when PDSN deems it necessary").

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour**, as above, in view of, **Jean** (US Application Publication No. 2004/0105400).

For claim 21, Madour discloses all the limitations of subject matter

Madour does not disclose the following limitation:

wherein the BS, as adapted to determine that the signaling between the MS and the target PDSN has been completed, is adapted to

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receive, from the target PDSN via the PCF, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed, (refer to paragraphs 0030 and 0034).

Jean discloses the following limitation :

wherein the BS, as adapted to determine that the signaling between the MS and the target PDSN has been completed, is adapted to

receive, from the target PDSN via the PCF, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed, (refer to paragraphs 0030 and 0034).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use wherein the BS, as adapted to determine that the signaling between the MS and the target PDSN has been completed, is adapted to receive, from the target PDSN via the PCF, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed. The motivation for using this capability is to have the PPP connection within the specified time in timer.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour**, as above, in view of , **Athalye** (US Application Publication No. 2004/0162031).

For claim 22, Madour discloses all the limitations of subject matter

Madour does not disclose the following limitation:

- wherein the BS is further adapted to receive, from the target PDSN via the PCF, a timer value for a packet data inactivity timer in response to

the signaling to support the inter-PDSN handoff exchanged by the PCF with the target PDSN.

Jean discloses the following limitation :

- wherein the BS is further adapted to receive, from the target PDSN via the PCF, a timer value for a packet data inactivity timer in response to the signaling to support the inter-PDSN handoff exchanged by the PCF with the target PDSN., (refer to “the PDSN may generate a transmission indicator for the base station to use a smaller size traffic channel dormant timer”, paragraph 0014).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use wherein the BS, as adapted to determine that the signaling between the MS and the target PDSN has been completed, is adapted to receive, from the target PDSN via the PCF, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed. The motivation for using this capability is to have the PPP connection within the specified time in timer.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour’907**, as above, in view of , **Athalye** (US Application Publication No. 2004/0162031).

For claim 22, Madour discloses all the limitations of subject matter

Madour does not disclose the following limitation:

- wherein the BS is further adapted to receive, from the target PDSN via the PCF, a timer value for a packet data inactivity timer in response to the signaling to support the inter-PDSN handoff exchanged by the PCF with the target PDSN.

Athalye discloses the following limitation :

- wherein the BS is further adapted to receive, from the target PDSN via the PCF, a timer value for a packet data inactivity timer in response to the signaling to support the inter-PDSN handoff exchanged by the PCF with the target PDSN., (refer to “the PDSN may generate a transmission indicator for the base station to use a smaller size traffic channel dormant timer”, paragraph 0014).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use wherein the BS, as adapted to determine that the signaling between the MS and the target PDSN has been completed, is adapted to receive, from the target PDSN via the PCF, an indication that the signaling between the MS and the target PDSN related to the inter-PDSN handoff has been completed. The motivation for using this capability is to have the PPP connection within the specified time in timer.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour/907** in view of Madour’431 as above, and further, in view of **Purnadi et al** (US Application Patent No. 2003/0219024),hereinafter, Purnadi).

For claim 9, Madour'907 in view of Madour'431 discloses all the limitations of subject Matter. Madour'907 in view of Madour'431 does not disclose the following limitation:

- wherein the indication that the signaling related to the inter-PDsN handoff has been completed is included within an A1 l-session Update message, (refer to "update A11 interface message",

Purnadi discloses the following limitation:

- wherein the indication that the signaling related to the inter-PDsN handoff has been completed is included within an A1 l-session Update message, (refer to "update A11 interface message", (refer to paragraph 0050).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of "wherein the indication that the signaling related to the inter-PDsN handoff has been completed is included within an A1 l-session Update message". The capability can be implemented in the access network. The motivation for notifying the source terminal via access network that signaling has been completed to release current traffic channel.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Madour/907** in view of Madour'431 and Purnadi, as above, and further, in view of **Julka et al** (US Application Patent No. 2005/0226154), hereinafter, **Julka**).

For claim 10, Madour'907 in view of Madour'431 and Purnadi discloses all the limitations of subject matter.

Madour'907 in view of Madour'431 and Purnadi does not disclose the following limitations:

- wherein the indication that the signaling related to the inter-pDsN handoff has been completed is conveyed via a Normal vendor/organization Specific Extension (NVSE) of the A1 l-session Update message.

Julka discloses the following limitations::

- wherein the indication that the signaling related to the inter-pDsN handoff has been completed is conveyed via a Normal vendor/organization Specific Extension (NVSE) of the A1 l-session Update message. (refer to paragraph 0050.)

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of “wherein the indication that the signaling related to the inter-pDsN handoff has been completed is conveyed via a Normal vendor/organization Specific Extension (NVSE) of the A1 l-session Update message”. The capability can be implemented in the access network. The motivation for notifying the source terminal via access network that signaling has been completed to release current traffic channel.

Allowable Subject Matter

14. Claims 13-19, 23 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, “Madour, as cited by the Examiner, does not teach establishing, by the AN with the MS, a traffic channel (TCH) to support the inter-PDSN handoff. The traffic channels that Madour refers to in the above paragraphs all appear to be for purposes other than to support an inter-PDSN handoff. Clearly, TCHS are used for many purposes. However, the applicants have claimed a new use that the p/or art does not appear to teach or suggest.

In response, it is stated that Madour discloses in fig. 9, steps 125-126, “At step 125, the MS performs an inter-PDSN dormant handoff. At 126, the packet-data session is reactivated due to the sending of agent advertisements and PPP re-negotiation. The reactivation includes the establishment of an SCCP connection 14 between the MSC 11 and the BSC 12”, refer to paragraph 0064, **(previously, in last office action (Final), fig. 9 was inadvertently referred to paragraph 0006, instead of 0064 and 0065, which relate to fig. 9).**

In response, it is, further, stated that Madour discloses “target PDSN always sends agent advertisements prompting the establishment of a **traffic channel** by the BS 12. An SCCP connection 14 thus exists between the BSC 12 and the MS 11 for that MS, refer to paragraph 0065.

Applicant argues, “Since none of the references cited, either Independently or in combination, teach all of the limitations of Independent claims 1 or 20, or therefore, all the

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limitations of their respective dependent claims, it is asserted that neither anticipation nor a prima facie case for obviousness has been shown.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all references used, see office action, disclose either alone or in combination, all the limitations of the claims explicitly.

In light of above explanations, arguments by applicant are not persuasive.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra 5/29/06
Inder P Mehra
Examiner
Art Unit 2617

JPezzo
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PRIMARY EXAMINER